

# ICT and the Teaching-learning process in history in high School: São Mateus-ES

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**Keywords—** History teaching, High school, Information and communication technology, Hybrid Curriculum.

**Abstract—** This research consists in understanding how the use of information and communication technologies (ICT) facilitates and stimulates the teaching-learning process of the subject of History in 3rd grade high school classes in two schools in the city of São Mateus/ ES, Colégio InPacto of the private education network and EEEFM Santo Antônio of the state public education network. This is a case study, qualitative in nature, carried out through questionnaires with open questions in order to understand the functionality of the use of technologies by students and teachers in History classes. In this context, we aim to verify the applicability of the Pedagogical Political Project of the schools surveyed regarding the use of ICT; report the teachers' understanding of the teaching and learning process and observe how students dialogue with the use of ICT during history classes. The analysis of the questionnaires showed that teachers and students use ICT frequently in the teaching-learning process, but teachers, in their pedagogical practices, use ICT only as an aid tool. We detected that students and teachers access internet networks through cell phones, and we also found that the Wi-Fi signal reception failures in schools were restrictions on the development of the proposed activities. Despite the obstacles, teachers and students are in agreement that ICT positively help the pedagogical work. The analysis of the questionnaires showed that teachers and students use ICT frequently in the teaching-learning process, but teachers, in their pedagogical practices, use ICT only as an aid tool. We detected that students and teachers access internet networks through cell phones, and we also found that the Wi-Fi signal reception failures in schools were restrictions on the development of the proposed activities. Despite the obstacles, teachers and students are in agreement that ICT help the pedagogical work in a positive way. The analysis of the questionnaires showed that teachers and students use ICT frequently in the teaching-learning process, but teachers, in their pedagogical practices, use ICT only as an aid tool. We detected that students and teachers access internet networks through cell phones, and we also found that Wi-Fi signal reception failures in schools were restrictions on the development of the proposed activities. Despite the obstacles, teachers and students are in agreement that ICT help the pedagogical work in a positive way. We detected that students and teachers access internet networks through cell phones, and we also found that the Wi-Fi signal reception failures in schools were restrictions on the development of the proposed activities. Despite the obstacles, teachers and students are in agreement that ICT positively help the

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## I. INTRODUCTION

This research work has as its line of investigation the process of teaching and learning through information and communication technologies (ICT), in History classes in the 3rd grade of high school. This study intends to contribute to the knowledge of the reality of the use of ICT in the 3rd grade of High School, in two schools, Colégio InPacto, of the private education system, and the EEEFM Santo Antônio School, of the State education system, located in municipality of São Mateus.

In the era of information systems, when analyzing Brazilian educational institutions, in terms of technology and digital media, we notice a large gap in comparison with foreign countries. However, the use of technologies by teachers and students is increasingly common in classrooms. According to a survey carried out in 2017, by TIC Educação, from the Center for Studies on Information and Communication Technologies<sup>1</sup> (CETIC), 52% of Brazilian students used cell phones in the classroom.

The research has as general objective to present how the use of digital technologies contributes to a more satisfactory and effective learning in the teaching of History in the 3rd grade of High School. In this context, we have as specific objectives: to observe how students interact with the use of ICT during the development of pedagogical activities, proposed in History classes; describe how the use of cell phones, Internet and video classes as technological tools contribute to teaching and learning in History classes in the 3rd grade of High School; to verify if the applicability of the use of ICTs, as an item of the Pedagogical Political Project (PPP), of the researched schools has materialized in practice; propose to the Regional Superintendency of Education of São Mateus/ES, and to Colégio InPacto,

For this work, it was decided to carry out a qualitative research, using the instruments of application of questionnaires, document analysis and classroom observation. The choice of these methods represents the study and collection of information about the practice of teaching History, with the use of information technologies.

Data collection took into account the variants of the public served and their educational realities. Three teachers and two 3rd grade high school classes from two public and private schools in the city of São Mateus participated in this study.

The research is relevant, as it is necessary to understand that traditional academic knowledge alone does not prepare the student to carry out complex activities in different cultural environments. Teachers and students need to adapt curriculum proposals consistent with the reality in which they are inserted. With the rapid changes promoted by the information society, new ways of being, feeling and knowing about the world need to be stimulated and permeated by the technological environment. There is no way to distance education, technology and training from the world of work.

The experiences of classes organized through active methodologies dynamically and interactively enrich the carrying out of group activities, stimulating debates and discussions from different points of view, better establishing concepts and information about the content of History. We end chapter 2, discussing the Political Pedagogical Projects of the schools surveyed regarding the use of ICTs.

## II. HISTORY TEACHING IN THE HISTORY OF BRAZIL

Taking a brief walk through the historiography about the teaching of History, it is verified that its origin as a school subject was with its participation in the composition of the Classic Humanities curriculum of the 19th century. However, it was found that the historical contents were part of the classical humanities in Jesuit schools, between the 16th and 18th centuries. The teaching of history in Brazil was marked by deep contradictions, until the first half of the 18th century, teaching was based on the Jesuitic method of the Society of Jesus, a religious order founded by Ignacio de Loyola, in 1540 in Europe. This educational model, predominant in the region of the Iberian Peninsula, in the beginning of the Modern Age, reflected in the culture of Brazilian settlers.

The teaching of history as a science would only be born during the 19th century. When the Society of Jesus was founded in the 16th century, there was no university

<sup>1</sup> [www.cetic.br/publicacao/pesquisa-sobre-o-use-of-technology-of-information-e-communication-nas-schools-brasileiras-tic-educacao-2017](http://www.cetic.br/publicacao/pesquisa-sobre-o-use-of-technology-of-information-e-communication-nas-schools-brasileiras-tic-educacao-2017). Accessed on 21 May 19.

or school that taught history as a subject. It was in the Jesuit schools that the subject of History began to be taught as a complement to the Church's history, it was an important instrument for interpreting courses in the humanities and theology.

In the first three decades of the 20th century, a series of changes were initiated in Brazilian education. In the context of the 1930 Revolution, with the implantation of the Provisional Government of Getúlio Vargas, in the following year, in 1931, the Francisco Campos Reform took place. Amidst the ideological struggles over the regime and the financial catastrophe that devastated the country, Campos officially and nationally established the modernization of secondary education, organizing school culture through the establishment of a series of measures.

In the case of a government with dictatorial characteristics, the teaching of history during the totalitarian Estado Novo dictatorship of Vargas (1937-1945) represented the colors of the national flag, exalting patriotism, national heroes and the great deeds of the past. From the 1950s onwards, there was a break with the previous pattern of teaching history, with the return of democratic normality, nationalism, populism and the advance in the industrialization process in Brazil; the labor market demanded a literate working class.

It served with greater strength to base the organization of work on the achievement of a modern capitalist project that should, by the school, not train technicians, but create historically manipulated work values in order to create the image of the worker as a building agent of the nation's wealth; not as an element explored by capital and holder of rights that needed to be conquered (BITTENCOURT, 1998, p.201).

The teaching of history conveyed political and economic knowledge to students, for a better understanding of the social changes imposed by capitalism.

From the 1980s, with the redemocratization, the promulgation of the Citizen Constitution specifying the LDB, the Law of Guidelines and Bases of Education, and in the following decade the National Curriculum Parameters (PCN's) for the discipline of History, was used the concept of citizen as a theoretical framework. The proposal of the LDB and the PCN's intended to break with

the traditional structures of the teaching of History, establishing an identity between teaching and research, a critical attitude towards constituted knowledge and the periodization taught and consolidated in the curricula.

According to the PCNs, as an integral part of the Human Sciences, the function of History would be to enable the understanding of current problems, basically those that impede the constitution of citizenship. The student, as a citizen, participant and constructor of his own history, must understand these problems and the methodological resource for this understanding must be the study of clarifying themes, established from research and critical reading of sources and bibliography (LOPES, 2002, p.392).

In the 1990s, new curriculum policies were being addressed, educational issues took on complex dimensions, as the proposal of the History PCNs was to provide teachers with a clear vision of the teaching of this subject. The document's concern is evident in the teaching of History that develop human consciousness, establishing relationships between individual, collective and social identities; building notions of similarities and differences, permanencies and continuities. Thus, the teaching of History focused on the use of specific methodologies for the student's age group, respecting the cultural and social particularities of the students.

Created under speeches of struggle and improvement for education, in December 2018, the Base Nacional Comum Curricular (BNCC) was approved, with a normative document, being approved under controversies in debates and discussions. As participants in decision-making, we highlight representatives of the school community, national and international institutions, financial organizations and the business class.

In the teachers' understanding, the regulations approved by the BNCC, present a neglect in the educational process, increasing the partnerships that lead to the privatization and outsourcing of public resources in private institutions. Therefore, the training of students occurs in a more flexible and quicker way, meeting the needs of the labor market and the capitalist and market economy.

According to Zanatta (2017, p. 324):

[...] Due to this social regulation, promoted between the public and private powers, the discussions that permeate public educational policies have become more complex. This is because the State has been losing its central role as author of regulation and entrepreneurs, through their organizations (philanthropic institutions, NGOs, foundations), are consolidating as protagonists of educational policies.

Regarding the discipline of History, in the area of Human Sciences and its technologies, related to the use of information and communication technologies, we will focus on the 5th General Competence of BNCC. This competence indicates that students need to be protagonists of their knowledge and produce it through digital resources. Youth protagonism directs to the formation of young people committed to their personal, entrepreneurial and participatory growth in the community in which they are inserted, being able to align the knowledge learned at school with their daily life.

### III. HYBRID TEACHING AND THE USE OF TECHNOLOGIES

Hybrid teaching is a methodology that combines face-to-face teaching with distance learning. According to Morán (2014), hybrid means mixed, blended, blended. This teaching model gained space in the Brazilian educational society from the first decade of the 21st century onwards, spread through information and communication technologies. Initially, hybrid education was implemented in higher education, in the distance learning (EAD) mode, as a way to expand the offer of training for those who did not complete their studies on time or were unable to continue their training because of cause of work.

Kenski (2008) reports that the distance learning modality (EAD) emerged in the United States, specifically in the city of Boston, in 1728, through the offer of shorthand courses, whose material was sent to students by mail order. Dating back to the 18th century, this was the first record of a distance course offered. Then, in 1833, we have the shorthand course offered at the University of Lund, Sweden, made available to students through correspondence. Following the advance of the distance

modality, we have England, offering from the year 1840, also the shorthand course, but focused on religious activity of biblical transcriptions. However, the focus is on Germany, pioneering the creation of the School of Languages by correspondence, in 1856.

In Brazil, the modality of teaching in distance education (EAD) emerged at the birth of the Republic, from the year 1904, with the offer of typing courses by correspondence. In the 1920s, with the popularization of radio, distance courses gained a new form of propagation by the Roquette-Pinto Foundation. In the same century, between the 1940s and 1950s, the TV sets that broadcast courses under the telecourses platform arrived, in particular, we have the Monitor Institute and the Instituto Universal Brasileiro.

The 21st century opens the era of notebooks and cell phones, with internet access, opening up a range of facilities and services, followed by tablets. As a result, we have an improvement in the technology of cell phones, classified as smartphones, that is, smart devices that, through applications, offer services of the most varied orders. From then on, we moved towards the experience of hybrid teaching that, through social and economic changes, started to gain space in Brazilian education in light of the popularization of internet access.

The internet appears as a possible space for articulation and integration between people connected with everything that exists in the digital space. Experiences with the use of digital media make it easier for young people of the new generation to learn what interests them (KENSKI, 2012, p. 44).

At the beginning of its diffusion, the objective of distance education was professional improvement, through the provision of content to complement university education. Over the centuries, EAD follows the evolution of technologies, also directing the focus to basic education, to the classroom space. This, in the organizational and physical form, has changed little in its structure, however, with regard to distance education, it follows a pace of change as technology advances and students start to interact with these means during the execution of classes.

Currently, hybrid education is gaining prominence in basic education. Still little explored in Brazilian education networks, it is a way of modernization so that schools become more attractive, surpassing the traditional model and showing new paths for education,



since; educational practices need to be rethought and fragmented content does not meet the demands of a technological world. Hybrid teaching experiences in Brazilian education move slowly.

The greatest complexity of hybrid teaching is in breaking with the traditional, archaic and rigid school model, bringing to the reality of the school community the expansion of pedagogical practices that integrate what is necessary to learn and what is worth learning, combining theory and practice. For Bacich, Neto and Trevisani (2015), there is no single way to learn, we are all apprentices and teachers, consumers and producers of information and knowledge. We all teach and learn.

Moran (2014) defines hybrid teaching as a symbiotic interconnection between the physical world and the digital world. Highlights the classroom as an environment that redesigns itself from the emergence of new ideas, based on projects, activities, games, challenges and group work; permeated by technology with the supervision and guidance of teachers. Therefore, in the view of these authors, hybrid can be a more flexible and broad curriculum, which is developed in accordance with the needs of society in constant change.

The shift from traditional to innovation brings new things to the classroom space, with pedagogical models focused on active methodologies. Thanks to technological and communication advances, increasingly integrated into society, active methodologies have their origin in Distance Learning (EAD). This teaching model opened the doors to new pedagogical learning practices, allowing students to control the content, place and time needed to learn and assimilate concepts, combining traditional teaching with innovation.

Distance education is already a reality. More than that, large universities today make some of their courses available virtually, free of charge and with certification, providing a basis for discussing whether technology is not precipitating a change of enormous proportions in the educational system as a whole (BACICH, NETO e TREVISANI, 2015, p. 127).

In active methodologies, the student is the protagonist, acts as a participant and mediator in practical situations, with individual or group productions. The student has autonomy over their learning, as the content is available in different means of acquisition such as the

virtual environment, games, video classes, e-books, smartphones; always with the supervision and guidance of specialist professors in the field of knowledge.

Therefore, with the expansion of the highly connected society, formal education was put at an impasse, it urgently needs to be redesigned to serve this generation. As for educational practice mediated by digital resources, there is no previous model of education structured through technologies, but rather the construction of methodologies, the reorganization of curricula according to digital media, students' life projects, the requirement of proactivity, personalization, collaboration and entrepreneurial vision required by this current society.

Active methodologies, as the spelling itself defines, makes the student active, placing him as the central figure in his learning, being autonomous and participative, critical and challenging, trying to solve his difficulties and problems. For this reason, active methodologies assume different teaching practices and can be applied in the form of projects, with the purpose of stimulating partnership and collaboration. Another highlight is problem-based learning, where the student builds their attitudinal, conceptual and procedural learning based on solving problems that prepare them for the world of work. On the diversity of teaching methods Gabriel (2014, p.132) states that "when teaching is done in an interesting way and involving practical everyday issues, inserted in the personal experience, students are deeply engaged".

The teacher is responsible for planning what will be taught, carrying out the activities in a way aimed at learning processes in collaboration with students. Different from the traditional teaching model, for this methodology to be successful, students need to get used to the fact of carrying out studies on the topics investigated/studied before classes. This is another factor that generates autonomy for students, anticipating the study of content carries the intellect of prior information, stimulates curiosity and promotes shared doubt when explaining the proposed topic.

the maker culture<sup>2</sup> it is one more aspect to be applied in active methodologies. With an emphasis on learning to do, it maintains that any individual can create,

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<sup>2</sup>Teaching methodology that encourages learning to do in a creative and playful way to meet your educational needs. CORDOVA, Tania; VARGAS, Ingobert. Education Maker SESI-SC: inspirations and conception. In: 1st FabLearn Brazil Conference. 2016 Available at: <[http://fablearn.org/wpcontent/uploads/2016/09/FLBrazil\\_2016\\_paper\\_108.pdf](http://fablearn.org/wpcontent/uploads/2016/09/FLBrazil_2016_paper_108.pdf)>. Accessed on: January 25, 2019.

build or repair their own objects. This culture is based on real projects, with significant problems, combining craftsmanship with technological creation. It highlights testing new ideas, life stories, cross-functional environments and trying out practical solutions. In education, its applicability returns to creating and sharing experiences carried out with technological resources, created from educational needs.

Thus, the most used learning methodologies mainly involve the construction of projects with electronic games, videos, robotics applied to problem solving and content software, learning facilitators. For students of the current generation, the projects developed by this teaching methodology are received very naturally, as these resources are part of their daily routine.

The difficulties faced by teachers and students in expanding the use of digital technologies and media in the classroom are many: the spaces need to be adapted, the material to be used must be prepared in advance, we have the displacement of students in several spaces at the same time. There is a certain initial "disorder" in the process of applicability of activities, seen as a nuisance for the traditional teaching model. And yet, the rigidity of the curricular organization itself and of the school, classrooms structured for classes with changes of teachers at each end of the discipline's class time.

For Gabriel (2014), among the advantages of active methodology in education, we have the development of digital skills, team learning, interaction between students, engagement in the search for answers, group debates and constant updating through the use of applications of mobile classes. It highlights that active learning places the student at the center of education, going from a passive being, to a transforming agent of education in their interests, curiosity and identification with the contents.

The student, by resignifying their role in the teaching-learning process, understands that the school is the fundamental basis of their cultural universe of direction in the face of the new challenges imposed by society. In this process of change, the teacher is of paramount importance, he becomes an essential and vital figure to tutor the path, not as a provider of knowledge, but as a catalyst for learning, guiding, encouraging, assisting and pondering its retention process and discovery of knowledge.

THE Innovative high school education boosts the insertion of young people into the labor market and provides them with a leading role, because at this stage of their educational life, students are eager for intellectual and financial independence. Thus, when we critically reflect on

the use of technology in pedagogical practices, we understand that the social function of the school must promote autonomy.

#### IV. THE POLITICAL PEDAGOGICAL PROJECTS OF THE SCHOOLS

The Pedagogical Political Project (PPP) is a fundamental piece in the organization of the pedagogical work of educational institutions, it is it that directs the academic life of the school, organizing the various levels and modalities of teaching offered to students. It is in its writing that we find the education model that the school intends, idealizing possible objectives and goals to be achieved.

In Brazil, the importance of the PPP is highlighted after the publication of the Law of Guidelines and Bases of Education (LDB), in 1996, in its articles 12, 13 and 14, which establish the mandatory nature of a pedagogical proposal for basic education schools. As it is a political project, it presents proposals in an unfinished form, that is, it can be modified according to the institution's interests, with changes in the laws and pedagogical interests of the school. However, all changes are subject to approval by the school community.

By analyzing the political pedagogical projects of Colégio InPacto and EEEFM Santo Antônio, we found that schools treat the use of digital media and the insertion of technology in the classroom as a proposal integrated with theoretical content, based on the writing of the LDB and of the PCN's. The InPacto school highlights the use of technologies through digital media and platforms, present in its teaching material and those directed according to the teacher's planning. It places technology as an integral part of the daily routine of subjects and interdisciplinary activities, promoted throughout the school year, and encourages students to participate in fairs and scientific events that involve technology in the training path of students

EEEFM Santo Antônio brings in the writing of its PPP excerpts taken from the Common Basic Curriculum (CBC) of the state education system, where it explains in general the need to integrate technology in the context of the classroom. The CBC encourages activities that integrate theory and practice with the use of media. The school's PPP, in its last update, in 2019, describes as a goal to improve the use of the Mobile Computer Laboratory (*notebooks*) in the routine of classrooms as a tool to support educational activities and the use of cell phones, upon authorization of teachers to carry out school activities.

## V. METHODOLOGICAL COURSE

The qualitative research, answers to very particular questions, was carried out in two schools of the municipal education network of São Mateus, Colégio InPacto of the private network and EEEFM Santo Antônio, of the public education network of São Mateus/ES. The choice of the final year of the final stage of basic education reflects my daily practice as a history teacher in high school.

The social representations, discourses and knowledge produced by professors/students were analyzed, as the researched reality differs in the social context, representing two distinct social universes in which the researched subjects act. In this perspective, the contribution/participation of students to the realization of pedagogical practices that encourage the use of information technologies in the teaching-learning process, and how they dialogue with these resources, were also evaluated.

The InPacto school is a private educational institution, located in the city of São Mateus/ES. Founded in 2014, its facilities are located on Rua Pitu, Inocoops neighborhood. The main building has 12 classrooms, seven of which are operating in Elementary School II, High School, Pre-Ifes and Pre-Enem. In the organizational structure of this building, we have a library, science laboratory, educational computer lab with wi-fied signal for pedagogical activities, an elevator for wheelchair users in compliance with Law No. 10,098, of January 19, 2000 and the school's parking lot.

The school stands out as a reference in the quality of teaching and approval of students for higher education in the northern region of the state through the preparation for the National Secondary Education Examination (ENEM). It has been using since 2016, the Bernoulli System of handout material, from Elementary School to High School. As a pedagogical proposal, it focuses on teaching based on collaboration, respect, tolerance and understanding of reality. Its main function is to form citizens capable of living in a world of constant social, political and economic changes.

The Santo Antônio State Elementary and Secondary School, located in the Santo Antônio neighborhood, is a public school system, located at Copa 70 street, number 145, was founded in 1975 through Ordinance No. 3153 of 28/ 11/1975, with the act of approval and accreditation by the State Council of Education CEE/ES under number 41/75. It serves the following types of education: Elementary School II, High School, Youth and Adult Education and Vocational

Technical Course.

Its physical structure, consisting of a two-story building, has 16 classrooms, two educational computer labs with Wi-Fi signal restricted to pedagogical use, two science labs, resource room for specialized educational services (AEE), inner courtyard covered integrated to the cafeteria, external patio, an uncovered multi-sports court, auditorium, storeroom, secretariat, library, study room, teachers' room, pedagogues' room and bathrooms with accessibility for people with special needs. As it is an old building, the school does not have an elevator for wheelchair users, in order to ensure accessibility for this public, it allocates classes that have wheelchair users and those with other physical limitations in the classrooms on the ground floor.

In the administrative staff, the school has three pedagogues, four shift coordinators, two caregivers and two educational assistance teachers (AEE) to advise students with special needs and five school secretaries. The outsourced staff includes four lunch ladies, six cleaning assistants, two guards responsible for controlling the entrance and exit of the school community and monitoring the institution's surveillance cameras. We emphasize that the number of employees in the administrative and outsourced staff covers the three work shifts.

As a pedagogical proposal, it follows the Common Rules of Schools of the State Education Network of the State of Espírito Santo, which highlights in Title II - the purposes and principles of education the following orientation:

The participants in this research are three History teachers and 61 students from the 3rd grade of High School – last year, from the last stage of basic education in two public and private schools in São Mateus. For research applicability criteria, we considered limiting the researched subjects to the 3rd grade of high school. The questions were presented from a script so that the interviewees could reflect on the fundamental questions for our analysis.

The identification of research participants was optional, and in the universe of 64 participants, including students and teachers, only eight mentioned their names in the respondent's identification field. To guarantee the professional secrecy of the professors researched in this work, it was decided to identify them by numbers.

Of the 61 students interviewed belonging to the 3rd grade of high school, 28 students belong to the private education network and 33 students belong to the public education network in the city of São Mateus/ES. We emphasize that the researched public portrays different

social realities. In the private network, students have a study schedule with a study shift, monitoring offered by the school, wi-fi networks and didactic material with handouts with a digital platform accessible in various electronic media. The library, available in two shifts, has a library assistant and computers connected to the network available for research.

In the public network, students use textbooks as chosen by teachers through the National Textbook Plan (PNLD), guided by the Ministry of Education (MEC) and the wi-fi network is only allowed, in the specific case of this public school, as request of the teachers to coordinate the shift. As for the virtual learning environment, students can access the indications of virtual pages present in the textbook or access the page of the Secretary of State for Education (SEDU) in the Interactive Curriculum icon that offers an overview of content, videos, texts and animations on the contents provided for in the Common Basic Curriculum (CBC) of the state education system.

## VI. RESULT AND DISCUSSION

For the case study, we opted for a structured observation with observation sessions and the use of data collection instruments in two 3rd grade high school classes in the selected schools. In July, 2019, we started observing History classes using information and communication technologies; completing the observations in the first week of August 2019. The observation sessions are analyses, or verifications of the behavior of adolescents and teachers regarding the use of information and communication technologies in the schools observed.

The questions were answered by teachers and students in order to verify the degree of interest in using ICTs as a pedagogical tool in History classes. Of the various questions made available in the questionnaires, only a few were selected for data analysis and description.

History teachers and all students of the respective observed classes answered the questionnaire, applied with dates previously scheduled with the school management and pedagogical supervision of the mentioned schools. The planning time was the moment chosen by the teachers to respond to the survey. In this way, everyone belonging to this research universe could express their opinions on the requested approach. To guarantee the professional secrecy of the surveyed teachers, in the description of the class observations, it was decided to represent them by numbers.

In this context, I observed the fluidity of classes and the dynamics of planning when students use smartphones in an oriented way and the indications of the digital content platform in understanding the proposed

theme. The planning that combines digital media with theoretical content encourages creativity, criticality, diversity of views and understandings about the subject covered in class.

Regarding question 1 of the questionnaire applied to teachers, regarding academic training, all of them have a degree in History. Analyzing (Graph 1), it was found that 66% of the researched professors, that is, two professors, have a *lato sensu* postgraduate degree and only 34%, one professor has a *stricto sensu* postgraduate degree in the area of Human Sciences, discipline of History. In question 2 of the questionnaire, when asked where they concluded their graduation training, two teachers answered that they graduated from a federal institution and one teacher graduated from a private institution.

Questions 3 and 4 were directed to employment relationships and the teaching modalities in which teachers work. Responding to question 3, regarding the employment relationship, two teachers work simultaneously in the state public education network and in the private education network and only one, specifically, in the private education network. In question 4, regarding the type of teaching they teach, one works exclusively in high school and two work in elementary and high school.

In questions 5 and 6, we discussed the access/offer of training courses for the use of digital media in the classroom. Professor 1 reported that "the training is short, insufficient, the offer is small and in most cases they occur superficially, not being directed to our discipline. It is difficult to adapt the content taught to the digital media offered outside our didactic context. The school behind in relation to advances in technology, what we use are palliatives to make our classes more attractive.

Teacher 2 considered that the offers by the public network are permanent in the case of SEDU, made through access to the EAD Escolas Conectadas digital platform, in which registered teachers are informed by e-mail of the training schedule, but the courses are of short duration and encompass only training for the use of digital resources in general, not specifically covering the subject of History. We do training to be aware of changes, however in daily practice, it adds little as a didactic tool; we need changes in the pedagogical structure of schools. We cannot continue teaching with this traditional model, full of amendments to new practices, but plastered by material limitations.

Teacher 3, who works only in the private education network, emphasizes in her answer that the training offered by the private network meets the basic requirement to work with ICTs in the classroom, but because they are expensive courses and paid for by the interested party, there is no way maintain a frequency of



training in this area. I hardly find specialized formations in ICTs for the field of History. The digital formations offered by the educational material platforms adopted in the school I teach are directed towards the use of the material itself, and sometimes need to be adapted to the content I am working on.

For Bacich, Neto and Trevisani (2015), in the continuing education of teachers in Brazilian schools, both public and private, little has been developed in relation to new skills, especially those necessary for the intentional use of digital technologies in classrooms.

We evidence, according to the data exposed above, that in the new conception of learning, the teacher needs to show the student that there are different ways of building knowledge that go beyond the physical barriers of the classroom, therefore, continuing education in the area information and communication technology is of paramount importance for the pedagogical practice of teachers.

Regarding question 6, regarding the access of teachers in relation to training courses in digital media, we found that 67% of teachers, two teachers do not have access to training in digital media for applicability in the classroom and 33%, specifically one teacher, has access to training courses in digital media. In this way, we understand that teachers who have access to training courses can apply the knowledge acquired in the training process of their students, expanding the planning of their classes, using information and communication technologies aimed at the skills and competences necessary for the student's learning.

In question 7, we investigated the teachers' opinion about the possibility of a thematic history classroom, organized in a flexible way, with maps, images, books and notebooks with internet access.

Teacher 1 responded to the question saying that it is impossible to idealize thematic rooms in the public school system, due to the structure of the schools "There are not enough rooms for this type of organization, of course, if it were possible, it would be a great advance towards content learning. It is no longer up to us to be stuck in the textbook and in a plastered space. The thematic room allows the facilitation of the use of several methodologies adapted to the theme of the class, which would flow in a more pleasant and profitable way, the student could choose which tool to use to start their study.

Teacher 2 reported that she did not believe that this education model, with thematic rooms per curricular component, would soon be viable in the public school system. "I know of some public schools that try to implement this system, it is common in full-time schools,

but difficult in part-time schools, financial resources are minimal and physical spaces in schools are limited. But as for having thematic classrooms in my school, in the case of History, it would be the rebirth of the discipline, as I see that students lose interest in the subject because it is too theoretical and not very practical.

For Professor 3, who teaches exclusively in the private school system, in relation to thematic classrooms, she emphasized that "I like this concept of structuring, it would be very good if we had specific space for each discipline, but this is not the reality, the that we have today are adapted and shared spaces that we use according to our planning and availability of the rooms. I believe that, for the pedagogical practice, the thematic classrooms would be fundamental allies to technology".

As for the frequency of access to the Internet in the classroom, we applied this question to question number 8, of the questionnaire directed at teachers, and also, to question number 1, of questionnaire 2, applied to students. We found that the internet is a widely used information vehicle in the classroom, proof of this is that teachers and students access the web several times during the school term. Among the group of respondents, the category teachers has the highest percentage of accesses, around 99%, followed by the group of students from Colégio InPacto with 98% and with the lowest percentage, but no less relevant, we have students from EEEFM Santo Antônio with 87%. On the use of the internet, Brito and Purificação (2008, p.

Comparing the use of the internet between teachers and students in the schools surveyed, we can see that both are using the network frequently for pedagogical activities in the classroom, this fact demonstrates that a new educational model is needed.

The data obtained through the answers to question 2, of the questionnaire number 2, applied exclusively to the groups of students in the 3rd grade of High School of Colégio InPacto and EEEFM Santo Antônio, regarding the type of media most used to access the internet in the classroom. In the classroom, data referring to the responses of the 61 students interviewed were tabulated, with 85% representing 51 students using smartphones for research, 9% highlighting 6 students using tablets and 6% which is equivalent to 4 students using the Notebook for research.

The data tabulated from the answers to question 9, of the teachers' questionnaire and of question 5, of the questionnaire number 2, applied to students, show the form of media most used by students and teachers to access the research sites of the subject's contents Of history. We emphasize that this pedagogical practice refers to media access in the classroom.

According to Moran, we understand that digital media fit perfectly into the didactic practice of the classroom and that they walk together with students and teachers towards an educational process based on autonomy and objectivity.

Analyzing the group of 28 students surveyed at Colégio InPacto, we observed the preference for content offered in video classes with 38% of accesses, followed by educational websites with 29%, electronic book of Bernoulli teaching material with 27% and only 6% opting for the printed book. The group of 33 students surveyed from EEEFM Santo Antônio highlights their preference in 55% for access to video classes media, surpassing the first group of students from InPacto school in this option.

The second media option for students at EEEFM Santo Antônio are also educational sites with 23% access and 12% access to electronic books; it is noteworthy that the book is not offered in electronic form to students of the state education system, only electronic addresses contained in the textbook adopted by the PNLD of the current triennium so that they can have access to the content of the discipline, and finally, the printed book with 10% access surpassing InPacto college students in this option.

The 3 teachers surveyed are in divergence of option in relation to the two groups of students mentioned, the teachers prefer the electronic sites with 34% access, as it is from the consultation and evaluation of the content of the sites that they define in their planning the indications for the research/study of students, followed by 30% access to video classes media, previously defined for display/indication when consulting the material on electronic sites during the class.

In relation to the electronic book, teachers are in the middle between the two groups of students surveyed, with 22% of access, as they justify the fact that they need to frequently consult this material to develop assessment instruments and define exercises in the ENEM model. They surpass both groups in the printed book option, with 14% access, as this is necessary during classes. The printed book is used as a guiding object for planning/reviewing content, recording journals and other requests by the administrative part of the teaching units. According to Kenski (2008), teachers are the new architects of learning processes and need to show students that there are different ways to build knowledge.

Questionnaire 3, aimed at students, investigated the importance of teaching history in the last stage of basic education, the 3rd grade of high school. The production and transmission of historical knowledge involve power relations. Silva and Fonseca (2010) emphasize that power is consolidated in its historical forms of reproduction, that

is, legitimizing itself in schooled and socially accepted knowledge, materialized through the curriculum.

We can see that digital media gain space in relation to printed teaching material, this becomes a guide for pedagogical activities offering the basis for the study of the discipline and as a result of digitalization, we have a more attractive and enjoyable class.

Question 1 of Questionnaire 3 demonstrates the students' view of the importance of studying History. The teaching of History is responsible for the formative, educational, political and cultural role of students in line with the demands of today's society. For Silva and Fonseca (2010) "Borders, between-places, and mediations between the study and teaching of History in everyday school life must always be thought of in movement, linked to the social, political, economic and cultural context of the evolution of societies."

For 52% (17) students from EEEFM Santo Antônio and 44% (15) students from Colégio InPacto, the study of History is very important as it informs about the past, present and consequences for future generations, demonstrating the development of critical thinking in the face of changes historical events. For 37% (11) students from Colégio InPacto, followed by 28% (9) students from EEEFM Santo Antônio, the study of History is important and exposes themes from the past that are linked to our reality in politics, economics and culture. According to 20% (7) students from EEEFM Santo Antônio and 19% (2) students from Colégio InPacto, the study of History is of little importance since they do not consider the studies of historical facts close to the reality in which they live.

We understand that the discipline of History aims at the social formation of the individual in the context of the plurality of experiences. Studying History is to understand the process of change and permanence of societies. It is from the understanding of historical facts that the subject builds his social identity and becomes aware of his role as a transforming agent of reality and modifier of his environment.

Regarding the strength and power of curriculum direction, the curriculum proposal in the area of History in High School shows two discourses: economic and productive development focused on training the worker/consumer for the labor market and political training with the purpose for the exercise of citizenship. We observed from the data collected in question 1 that the subject of History is considered very important/important in some themes for 81% of the students at Colégio InPacto and for students at EEEFM Santo Antônio, it represents 80% as very important/important in some themes.

Therefore, we deduce that the teaching of History

in high school is a direct channel for transmitting ideas, knowledge and resistance, assuming the beacon of past issues intertwined with social facts of the present, and speculating future events.

Question 2 of questionnaire 3 refers to the didactics and practice of teaching History. Didactics has a decisive role in the teaching and learning process, it is considered a science that aims to know and expand the cognitive abilities of students. The didactic practice of History teachers throughout the structuring of the discipline, until the end of the 20th century, was marked by theoretical and repetitive content exposure. Didactics combined with technology and more flexible planning becomes a promise of revitalizing the classroom, however, two decades later, the changes are not very significant, the qualification offers in this area are limited and access to materials compatible with reality technology in this society is almost non-existent.

We realized, in the pedagogical practice of History teachers, that one way of motivating students to study the discipline is bringing the studied content closer to the reality experienced, in interdisciplinary activities, field research, use of digital content platforms and videos, debates, seminars, I encourage the creation of videos and podcasts on the subject studied. In this way, students associate theory with practice, making the study of the discipline and class dynamics more enjoyable.

Understanding the importance of identifying the reason for the students' lack of interest in the study of History, we asked in question 2 of questionnaire 3 what makes the History classes uninteresting according to the options in that question. Born from the 2000s onwards, in the era of the technological revolution, young people highlighted as the main reason for lack of interest in History classes is the little use of digital media with 39% (13) students from Colégio InPacto and 38% (10) students from EEEFM Santo Antônio the little use of technologies. The second reason for greater lack of interest is the content expository classes showing the dissatisfaction of 37% (12) students from Colégio InPacto and 31% (10) students from EEEFM Santo Antônio.

The lack of practical classes and the indication of reading many texts in the discipline of History appear with a low percentage and close to rejection in both groups of students surveyed. Freire (2011) highlights the importance of the teacher adapting the planning of his class to reality of the environment in which it is inserted, construction occurs through actions in an interactive process with social facts permeated with everything that can be extracted through exchanges of experiences, knowledge and knowledge.

Therefore, I understand that the students' lack of interest in the discipline of History is in the didactic practice used by teachers in their classes, reinforced through Freire's speech about teaching methods that must be in line with the reality of the world experienced by students. Students want to use technology in their training process as they use it for other daily tasks.

Questions 5 and 6 of questionnaire 3 applied to students investigated the optional choice of studying the subject of History in the high school curriculum. History is a science that studies the formation and advancement of societies over time, it is present in everyday life as a warning mechanism for human beings in their condition of transforming agent in the world.

In the answer to question 5, we detected that 68% (42) students surveyed would take the subject of History against 32% (19) students who would choose not to take the subject. The BNCC for the modality of high school, in the area of Human and Applied Social Sciences has the prerogative of expanding and deepening the learning developed up to the 9th grade of elementary school. Oriented towards ethical education, the area of human sciences, which includes the discipline of History, aims to train a full citizen, with ideals of justice, human rights, solidarity, understanding, respect for differences, encouraging interculturality and combating ethnic, religious, cultural and gender bias.

In question 6, the respondent was asked to justify his choice of choice in question 5. As a justification for 42 students taking the subject of History, answers were highlighted about the need to understand the economic, social and political context of society and 19 students justified who would not like to take the course due to the following factors: they prefer subjects with practical content, do not see such relevance in the study of history for everyday life, and are more skilled in the exact sciences.

Given the above, the research reveals that the use of technologies by students and teachers in History classes present a significant improvement in the teaching and learning process, giving new meaning to the study of the discipline and opening new perspectives for the applicability of the content in practical life. Through the variety of resources used in class planning, we notice the dynamism in which the themes take shape, the interest of students, the fluidity of the class, the critical sense in the face of converging/divergent points of view bringing the real world into the context of learning.

During the observation of classes we realized that the use of technology facilitates the development of historical content, however; the various forms of access to

content through technology do not replace the teacher's need. For students, the teacher represents the figure that safely guides the content, is the reference, the facilitator and mediator of the teaching and learning process. Technology is an ally, adapting itself according to the need for the development of activities proposed in the classroom.

Technology can keep any individual focused, when it exhausts the subject in one source, it searches for new sources until it reaches its training objective. For Gabriel (2014), there is no way to dissociate the technological evolution of society from teaching methodologies, technology combined with learning plays the role of adaptability to new social structures and preparation for the labor market.

Therefore, the practice of studying and teaching the subject History, as a curricular component, must adapt to the new times, it needs to seek methods that align the theoretical content with information and communication technologies. makes it clear that most students are interested in taking a course in History, but they want their practice to be aligned with technological resources so that they can experience the historical fact as close to the reality as experienced.

## VII. FINAL PRODUCT: CONTINUING TRAINING

Understood as a permanent process, continuing education ensures the improvement of knowledge necessary for the activity of educators for the curriculum component of History in the schools surveyed through their respective sponsoring networks: The Regional Superintendence of Education of São Mateus, responsible for EEEFM Santo Antônio; and the Bernoulli Group, a supplier of teaching material adopted by the InPacto school.

Within the scope of the São Mateus Regional Education Superintendence, we suggest that this moment of continuing education can take place during the school year, specifically in the pedagogical planning journeys (JPP) and during the area planning that take place at the beginning of each quarter. This moment, led by the SRE's pedagogical supervision team responsible for EEEFM Santo Antônio, has the function of guiding teachers on teaching methodologies using ICTs used by the State Department of Education (SEDU); and also direct History teachers to the continuing education available at the Education Professionals Training Center of Espírito Santo (CEFOPE). All History teachers from the State Education Network of SRE São Mateus will be able to participate in the continuing education, who work in the high school

modality. As for the content developed, it should be what is described in the Common Basic Curriculum (CBC) of History for the 3rd grade of high school in state schools, since this content encompasses all topics studied in the 1st and 2nd grade of high school, the 3rd grade being a content review moment.

At the InPacto school, we suggest that Continuing Training take place in line with the training offered by the Bernoulli teaching material adopted by the school, which takes place in person at two times of the school year: in the last week of January and at the return of the month's recess July. Bernoulli offers online training, in general, for the use of teaching material on the Bernoulli Teaching System platform and on the YouTube channel Bernoulli 360°. Our suggestion is that the school, as a partner company, may request the Bernoulli group to customize this training, offering training by teaching area and curriculum component through its pedagogical instructors, responsible for updating its teaching material.

## VIII. FINAL CONSIDERATIONS

The use of information and communication technologies in the 3rd grade of high school in the pedagogical practice of researched students and teachers has ensured a more significant and effective learning in the discipline of History. It is believed that teachers will only be able to exercise their educational role in the technological world if they know how to align theory with practice.

The use of cell phones, datashow, educational platforms with the variety of media resources available brings real life events into the classroom, and the school needs to evolve to keep up with these changes in a society in constant motion, permeated by technology. Access to the virtual field of content breaks the physical barriers of the school by opening new spaces for the production of knowledge, these spaces have been shared collaboratively by students and teachers who redesign the function of the classroom, making it more dynamic, critical and open to the variety of worldviews.

The approval of the Common National Curriculum Base (BNCC) for High School brings in its wording the use of teaching materials with technological support, providing the relationship between theory and the present time, teaching starts to rely on experiences outside the classroom, aiming at an approximation of the school-society relationship with the current moment. The direction of the Human Sciences curriculum, a discipline of History, proposed by the BNCC, leads to the formation of citizens able to face the diversities of the world of work and who know how to seek their learning autonomously in



a technological society.

Students and teachers face difficulties in accessing technological resources at times, and for this reason, the planning needs to be adapted for the conclusion of the class. The entire educational process must be thought of in the student's education, however; even with the setbacks of technology, there is a collaborative factor between students and teachers to execute the class proposal. Sharing and collaborating become watchwords in the educational process anchored by technology.

Another relevant factor throughout this research was the highlight, on the part of the professors, of the lack of offer of qualification courses in technologies for the area of History. They showed their dissatisfaction with the generalization of training and the lack of more complete and specific content platforms for the discipline of history. For the teacher, digital media are allied in conducting and executing their planning and the school needs to adapt to the new methodologies.

It is seen that the reproduction and repetition of content is losing space to the search for answers from different sources, which can be confronted, discussed, evaluated, rewritten, experienced through field class experiences and displayed in videos, podcasts, electronic books, museums and digital historical archives.

A change of attitude on the part of teachers in relation to the didactics of History is necessary. The redefinition of the study of History in the curriculum in view of the demands of this new society is not a simple task, it requires a look that transcends theoretical teachings, interacting the contents with the real needs of everyday life.

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